Application serial No. 10/720,067

Examiner: Krishnan S Menon

Art Unit: 1723

REMARKS

Present Status of the Application

Claims 1-12 are pending in the present application of which claims 1-7 have

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been canceled and claims 8-12 have been newly added to more explicitly describe the

claimed invention. Newly added proposed claims 8-12 are fully supported at FIG. 2,

lines 22-26 of page 5. It is believed that no new matter adds by way of amendments to

claims or otherwise to the application.

For at least the following reasons, Applicant respectfully submits that claims 8-

12 are in proper condition for allowance and reconsideration of this application is

respectfully requested.

The Rejections

1. The Office Action rejected claims 1-7 under 35 U.S.C. 112, second paragraph,

as being indefinite for failing to particularly point out and distinctly claim the subject

matter which applicant regards as the invention.

In rejecting the above claims, the Examiner stated that the claims are generally

narrative and indefinite, failing to conform with US practice. Appropriate correction is

required.

In response thereto, Applicant would like to thank the Examiner for pointing out

the informality and accordingly canceled claims 1-7 and added new claims 8-12 that

conform to the current US patent practice. Reconsideration is respectfully requested.

2. The Office Action rejected claims 1-3 and 5 under 35 U.S.C. 102(b) as being

anticipated by Ishida et al. (US-5,451,317, hereinafter Ishida).

Applicant respectfully disagrees and traverses the above rejections as set forth

below.

The present invention is generally directed to a filter system for treating high

concentration wastewater. The proposed independent claim 8, among other things,

recites at least [a micro filter device, disposed on said filter device such that a

surface of said micro filter device is tilted at an angle relative to a surface of said

filter device, wherein said tilted surface of said micro filter device faces a

wastewater inflow side; and a drain pipe, connected to a gas supply device,

disposed at a bottom side of said micro filter device on the wastewater inflow side,

for injecting a gas along said tilted surface of said micro filter device]. The

advantage of the above feature is that the gas ejected from the drain pipe disposed at the

bottom of the micro filter device coming in contact with the tilted surface of the micro filter device may provide a better circulation of the high concentration wastewater on the inflow side so that at least blockage of the filter device may be effectively reduced.

Applicant respectfully submits that the newly added proposed claim 8 is allowable over Ishida because Ishida substantially fails to teach or disclose each and every features of the claimed invention. More specifically, Ishida substantially fails to teach or disclose a filter system for treating high concentration wastewater comprising at least [a micro filter device, disposed on said filter device such that a surface of said micro filter device is tilted at an angle relative to a surface of said filter device, wherein said tilted surface of said micro filter device faces a wastewater inflow side; and a drain pipe, connected to a gas supply device, disposed at a bottom side of said micro filter device on the wastewater inflow side, for injecting a gas along said tilted surface of said micro filter device] as required by the newly added proposed independent claim 8.

Instead, Ishida substantially discloses a solid-liquid separator (31) for sludge or the like comprising: a treating tank (32); means disposed in the treating tank for establishing a horizontal flow therein; and a plurality of stages of submerged filter systems (35) arranged in the treating tank sequentially in the direction of the horizontal flow. This horizontal flow is used sequentially in the submerged filter systems so that the power to be consumed for establishing a scavenging flow can be reduced (please see the abstract and the entire disclosure of Ishida). However, Ishida substantially fails to teach or disclose any micro filter device disposed on the submerged filter system (35). Therefore, it is clearly evident that Ishida substantially fails to even mention any micro filter device disposed on the submerged filter system (35). Thus, Applicant respectfully

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submits that Ishida at least lacks a micro filter device of the claimed invention as

claimed in the newly added proposed independent claim 8. Accordingly, Applicant

respectfully submits that Ishida cannot possibly anticipate the newly added proposed

independent claim 8 in this regard.

Claims 9-12, which directly or indirectly depend from the proposed independent

claim 8, are also patentable over Ishida for at least their dependency from an allowable

base claim.

For at least the foregoing reasons, Applicant respectfully submits that claims 8-

12 patently define over Ishida and therefore should be allowed. Reconsideration and

withdrawal of these rejections is respectfully requested.

3. The Office Action rejected claims 1-3 and 5 under 35 U.S.C. 102(b) as

being anticipated by Cote et al. (US-5,607,593, hereinafter Cote).

Applicant respectfully disagrees and traverses the above rejections as set forth

below.

The present invention is generally directed to a filter system for treating high

concentration wastewater. The proposed independent claim 8, among other things,

recites at least [a micro filter device, disposed on said filter device such that a

surface of said micro filter device is tilted at an angle relative to a surface of said

filter device, wherein said tilted surface of said micro filter device faces a

wastewater inflow side; and a drain pipe, connected to a gas supply device.

disposed at a bottom side of said micro filter device on the wastewater inflow side,

for injecting a gas along said tilted surface of said micro filter device]. The

advantage of the above feature is that the gas ejected from the drain pipe disposed at the

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bottom of the micro filter device coming in contact with the tilted surface of the micro

filter device may provide a better circulation of the high concentration wastewater on

the inflow side so that at least blockage of the filter device may be effectively reduced.

Applicant respectfully submits that the newly added proposed claim 8 is

allowable over Cote because Cote substantially fails to teach or disclose each and every

features of the claimed invention. More specifically, Cote substantially fails to teach or

disclose a filter system for treating high concentration wastewater comprising at least [a

micro filter device, disposed on said filter device such that a surface of said micro

filter device is tilted at an angle relative to a surface of said filter device, wherein

said tilted surface of said micro filter device faces a wastewater inflow side; and a

drain pipe, connected to a gas supply device, disposed at a bottom side of said

micro filter device on the wastewater inflow side, for injecting a gas along said

tilted surface of said micro filter device] as required by the newly added proposed

independent claim 8.

Instead, Cote substantially discloses a water-treatment installation including a

reactor demarcating at least one treatment chamber, the reactor (1) comprising a

conveying assembly to convey the water to be treated into the chamber; a removing

assembly for removing the floated pollutants and a removing assembly for removing the

decanted pollutants; a plurality of filtration membranes (3) laid out within the chamber

and submerged in the water to be treated; a demarcating assembly for demarcating a

filtration zone around each of the membranes; carrying and circulating member guiding

a current of water to be treated in the filtration zone along a preferred direction, the

carrying and circulating member including ozone-injection assembly; and a recovering

assembly recovering the permeate at an outlet of the filtration membranes (3) (please see

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the abstract and the entire disclosure). More particularly, Cote substantially teaches or

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discloses, at FIG. 5 and 6A, that a sheath 5a that surrounds membrane 3, wherein the

surface of the sheath 5a is substantially parallel to that of the membrane 3. Thus, it is

clearly evident that Cote fails to teach or disclose a micro filter device disposed on

said filter device (membrane 3) such that a surface of said micro filter device is

tilted at an angle relative to a surface of said filter device (membrane 3), instead

Cote substantially teaches or discloses that a sheath 5a is disposed on the membrane 3

which is in contact and parallel to a surface of the membrane 3. Thus, Applicant

respectfully submits that Cote lacks at least a micro filter device disposed on said

filter device (membrane 3) such that a surface of said micro filter device is tilted at

an angle relative to a surface of said filter device (membrane 3) of the claimed

invention as claimed in the newly added proposed independent claim 8. Accordingly,

Applicant respectfully submits that Cote cannot possibly anticipate the newly added

proposed independent claim 8 in this regard.

Claims 9-12, which directly or indirectly depend from the proposed independent

claim 8, are also patentable over Cote for at least their dependency from an allowable

base claim.

For at least the foregoing reasons, Applicant respectfully submits that claims 8-

12 patently define over Cote and therefore should be allowed. Reconsideration and

withdrawal of these rejections is respectfully requested.

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CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 8-12 of the present application are in proper condition for allowance. If the Examiner

believes that a telephone conference would expedite the examination of the above-

identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted

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